UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|------------------------------------|----------------------|---------------------|------------------|
| 10/577,584 | 04/27/2006 | Mark Jensen | 21568P | 7482 |
| 210 MERCK ANI | 7590 10/11/2007 | | EXAMINER | |
| P O BOX 200 | MERCK AND CO., INC P O BOX 2000 | | AULAKH, CHARANJIT | |
| RAHWAY, NJ 07065-0907 | | | ART UNIT | PAPER NUMBER |
| | | | 1625 | |
| | | | | |
| | | | MAIL DATE | DELIVERY MODE |
| | | | 10/11/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | Application No. | Applicant(s) | | | |
|--|--|---|--|--|--|
| | 10/577,584 | JENSEN ET AL. | | | |
| Office Action Summary | Examiner | Art Unit | | | |
| | Charanjit S. Aulakh | 1625 | | | |
| The MAILING DATE of this communication app Period for Reply | pears on the cover sheet with the c | orrespondence address | | | |
| A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D. - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be time will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE | lely filed the mailing date of this communication. D (35 U.S.C. § 133). | | | |
| Status | | | | | |
| 1) ☐ Responsive to communication(s) filed on 2a) ☐ This action is FINAL . 2b) ☑ This a) ☐ Since this application is in condition for alloware closed in accordance with the practice under E | s action is non-final. nce except for formal matters, pro | | | | |
| Disposition of Claims | | | | | |
| 4) ⊠ Claim(s) 1-5 is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) 1-5 is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/or | • | · | | | |
| Application Papers | • | | | | |
| 9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) acc Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Ex | epted or b) objected to by the E drawing(s) be held in abeyance. See tion is required if the drawing(s) is obj | e 37 CFR 1.85(a). ected to. See 37 CFR 1.121(d). | | | |
| Priority under 35 U.S.C. § 119 | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 4/27/06. | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other: | ite | | | |

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DETAILED ACTION

1. Claims 1-5 are pending in the application.

Specification

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 2-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The following eight different factors (see Ex parte Foreman, 230 USPQ at 547; Wands, In re, 858.F. 2d 731, 8 USPQ 2d 1400, Fed. Cir. 1988) must be considered in order for the specification to be enabling for what is being claimed:

Quantity of experimentation necessary, the amount of direction or guidance provided, presence or absence of working examples, the nature of the invention, the state of the prior art, the relative skill of those in the art, the predictability or unpredictability and the breadth of claims. In the instant case, the specification is not enabling based on atleast four of the above mentioned eight different factors such as quantity of experimentation

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necessary, the amount of direction or guidance provided, presence of working examples, state of the prior art, unpredictability and the breadth of claims.

The specification mentions on page 1 that the instant compound is a potent CCR-2 inhibitor (see page 1, lines 10-14). However, there is no teaching or guidance present in the specification to assess this inhibition of CCR-2 receptor. There is no teaching or guidance present in the specification or prior art that the instant compound can modulate (activate as well as inhibit) every known chemokine receptor. There is no teaching in the specification or prior art that structurally closely related compounds having antagonist activity at CCR-2 receptors are well known to have therapeutic utility in treating every known inflammatory and immunoregulatory disease including rheumatoid arthritis. There are no working examples present showing efficacy of instant compound in known animal models of every known inflammatory and immunoregulatory disease including rheumatoid arthritis. In absence of such teachings, guidance, presence of working examples and prior art, it would require undue experimentation to demonstrate efficacy of instant compound in known animal models of every known inflammatory and immunoregulatory disease including rheumatoid arthritis and hence their utility for treating these disorders.

In regard to ameliorating a disease condition, it is well known in the art that there are multiple mechanisms involved in the etiology of any known disease condition.

Therefore, correcting only one of these several mechanisms (such as CCR-2 antagonism in the instant case) will not completely cure that specific disease condition.

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Claim Rejections - 35 USC § 102

(e) the invéntion was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Jiao (U.S. Patent 6,812,234).

Jiao discloses compounds of formula I, pharmaceutical compositions containing these compounds and methods of treating inflammatory and immunoregulatory diseases using these compounds (see col. 3, lines 1-25). The salt of compound of claim 29 with succinic acid disclosed by Jiao clearly anticipates the instant claims.

Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 7. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 - 1. Determining the scope and contents of the prior art.
 - 2. Ascertaining the differences between the prior art and the claims at issue.
 - 3. Resolving the level of ordinary skill in the pertinent art.
 - 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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8. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jiao (WO 03/093266, cited on applicant's form 1449).

Jiao discloses compounds of formula I, pharmaceutical compositions containing these compounds and methods of treating inflammatory and immunoregulatory diseases using these compounds (see page 3, lines 16-30). In claim 5, Jiao discloses pharmaceutical acceptable salt of instant compound (see 2nd compound on page 42). This compound of Jiao meets all the limitations of instant claims except that Jiao does not mention specifically the succinate salt of this compound. However, Jiao teaches on page 5, lines 20-25 that the pharmaceutically acceptable salts include succinate (see line 25). Therefore, it would have been obvious to one skilled in the art to prepare succinate salt of this compound with reasonable expectation of success.

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1 and 5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 3 and 15 of copending Application No. 10/577,587. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the cited application are directed to a process for preparing instant compound of claim 1.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charanjit S. Aulakh whose telephone number is (571)272-0678. The examiner can normally be reached on Monday through Friday, 8:30 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres can be reached on (571)272-0867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Charanjit S. Aulakh Primary Examiner Art Unit 1625